



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/774,482

02/10/2004

Karl deGroot

02-1586

8937

7590
Elias C. Borges
Suite 406
555 Burnhamthorpe Road
Toronto, ON M9C 2Y3
CANADA

08/21/2007

EXAMINER

HWANG, VICTOR KENNY

ART UNIT

PAPER NUMBER

3764

MAIL DATE

DELIVERY MODE

08/21/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/774,482

Applicant(s)

DEGROOT, KARL

Examiner

Victor K. Hwang

Art Unit

3764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 24 is/are allowed.
- 6) ☒ Claim(s) 21 and 22 is/are rejected.
- 7) ☒ Claim(s) 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION***Response to Arguments***

1. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Specification

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the specification does not support the first and second peripheral edges being oriented substantially perpendicular to the first and second flanges, respectively, and substantially parallel to the central axis, as recited on lines 6-8 of claim 21. The specification discloses at page 4, lines 16-17 that the flanges 14 have several holes 33 positioned along peripheral edge 29 which are configured to receive bolts 18. There is no further description in the specification with regards to the peripheral edge. At page 4, lines 17-18, the rim 30 is described as preferably perpendicular to outer surface 24 and parallel to axis 21. Outer surface 24 is the flat outer surface of the flange 14 and axis 21 is the longitudinal axis of the cylindrical portion 20 of the handle portion 12. Therefore, the recitation with regard to the first and second peripheral edges on lines 6-8 of claim 21 presumably should refer to first and second rims.

Also in claim 21 at lines 11, 13, 15, 18 and 24, the recitations of "edge" or "edges" presumably should recite --rim-- or --rims--.

Claim Objections

3. Claims 21-24 are objected to because of the following informalities:

in claim 21, line 3, the recitation "cental" presumably should be changed to --central--;

in claim 21, lines 6-7, the recitation "the first and second peripheral edges" presumably should be changed to --the first and second peripheral rims--, but would result in a lack of antecedent basis;

in claim 21, line 11, the recitation "edge" presumably should be changed to --rim--;

in claim 21, line 13, after the recitation "that" the term --the—presumably should be inserted;

in claim 21, line 13, the recitation "edge" presumably should be changed to --rim--;

in claim 21, line 15, the recitation "edge" presumably should be changed to --rim--;

in claim 21, line 18, the recitation "edge" presumably should be changed to --rim--;

in claim 21, line 21, the recitation "axis," is suggested to be changed to --axis-- in order to clarify that the bolts are not also parallel to the first and second flanges;

in claim 21, line 24, the recitation "edges" presumably should be changed to --rims--;

in claim 24, line 2, the recitation "an" presumably should be changed to --a--; and

in claim 24, line 14, the recitation "the flat surface" presumably should be changed to --the inner flat surface-- to distinguish it from the outwardly facing flat surface.

Claims 22 and 23 depend from claim 21, and are likewise objected to.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Hettick, Jr.* (US Pat. 4,529,198) in view of *Kim* (KR 2004042979 A). *Hettick, Jr.* discloses a weighted bar apparatus comprising a handle having an elongated central portion 10 with opposite first and second ends, and a central axis. The first and second ends have first and second flanges 31 formed thereon. The flanges 31 have circumferentially surrounding peripheral edges and rims. Each flange has an outward flat face to abut an inner flat surface of the weights. The first and second flanges 31 are bolted to first and second weights 11 by a plurality of bolts passing perpendicularly through the flange 31 and into the weights 11. The bolts are substantially parallel to the central axis.

Hettick, Jr. does not disclose the first and second weights each having a recess dimensioned and configured to receive respective first and second flanges, each recess having an internal rim circumferentially surrounding the recess, the peripheral rims of the flanges closely abutting respective internal rims when the flange is fully inserted into the recess, the flanges and recesses being dimensioned and configured such that the weights are substantially supported by the rims of the flanges; and the first and second flanges, the bolts, and the first and second recesses being dimensioned and configured such that any shear forces created between the handle and the weights caused by dropping the weighted bar apparatus are primarily transmitted

between the peripheral rims of the flanges and the internal rims of the weights rather than transversely through the bolts (claim 21); and each flange having an outward flat face and wherein each weight has an inner flat surface in the recess, the flat face of each flange abutting the flat surface of its respective weight (claim 22).

Kim discloses a weighted bar apparatus comprising a handle having an elongated central portion with opposite first and second ends, and a central axis. Each end has a flange formed thereon with a circumferentially surrounding peripheral edge and rim. First and second weights 120 have recesses 124 dimensioned and configured to receive a respective flange. Each recess has an internal rim circumferentially surrounding the recess such that the peripheral rim of the flange closely abuts the internal rim when the flange is fully inserted into the recess. Each weight also has a flange 123 on a side of the weight opposite the recess 124. The flanges 123 bear the weight of added weights together with the threaded fastener 121. *Kim* is teaching that the flange and recess are dimensioned and configured such that the weight of the weights can be substantially supported by the engagement between the flange and the recess.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide each weight of *Hettick, Jr.* with a recess dimensioned and configured to receive the rim of a flange, since *Kim* teaches that a flange received within a recess of a weight bears the weight of the weight, in addition to other fasteners. This would provide a stronger connection between the handle and the weights such that the fastener alone does not bear the weight.

Allowable Subject Matter

6. Claim 24 is allowed over the art of record.
7. Claim 23 is objected to as being dependent upon a rejected base claim, but would be allowable over the art of record if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
8. The following claims are drafted by the examiner and considered to distinguish patentably over the art of record in this application, claims 23 and 24 are presented to applicant for consideration:

Claim 23 (Amended) A dumbbell comprising: ~~The dumbbell of claim 22~~

a handle having an elongated central portion with opposite first and second ends,
and a central axis;

a first flange formed on the first end and a second flange formed on the second
end, the first and second flanges having first and second peripheral edges and peripheral
rims circumferentially surrounding the first and second flanges, respectively, the first and
second peripheral rims being oriented substantially perpendicular to the first and second
flanges, respectively, and substantially parallel to the central axis;

a first weight having a first recess dimensioned and configured to receive the first
flange, said first recess having a first internal rim circumferentially surrounding the first
recess, the first peripheral rim closely abutting the first internal rim when the first flange
is fully inserted into the first recess, the first flange and the first recess being dimensioned

and configured such that the first weight is substantially supported by the first rim of the flange;

a second weight having a second recess dimensioned and configured to receive the second flange, said second recess having a second internal rim circumferentially surrounding the second recess, the second peripheral rim closely abutting the second internal rim when the second flange is fully inserted into the second recess, the second flange and the second recess being dimensioned and configured such that the second weight is substantially supported by the second rim of the flange;

the first and second flanges being bolted to the weights by a plurality of bolts passing perpendicularly through the flange and into the weights, the bolts being substantially parallel to the axis; the first and second flanges, the bolts and the first and second recesses being dimensioned and configured such that any shear forces created between the handle and the weights caused by dropping the dumbbell are primarily transmitted between the peripheral rims of the flanges and the internal rims of the weights rather than transversely through the bolts, wherein each flange has an outward flat face and wherein each weight has an inner flat surface in the recess, the flat face of each flange abutting the flat surface of its respective weight, and further wherein the flat surfaces of each weight has an annular groove extending circumferentially around the flat surface adjacent the internal rim.

Claim 24 (Amended) A dumbbell comprising:

a handle having ~~an~~ a substantially cylindrical central portion having opposite first and second ends,

opposite first and second flanges formed on the first and second ends of the handle, respectively, said flanges each extending perpendicularly from the central portion, each flange having a diameter, a thickness, an outwardly facing flat surface, a peripheral edge and a rim adjacent the peripheral edge,

opposite first and second weights attached to the first and second flanges, respectively, each weight having a recess, each said recess having a diameter, a depth, an inner flat surface, and an internal rim extending peripherally around the inner flat surface, the diameter and depth of the recesses corresponding to the diameter and the thickness of the respective flange, the inner flat surface having an annular groove extending circumferentially around the flat surface adjacent the internal rim,

each flange being retained in the recess of its corresponding weight with the outwardly facing flat surface of each flange abutting the inner flat surface of the corresponding weight and the rim of the flange abutting the internal rim of the corresponding weight, and

each flange being secured to its respective weight by a plurality of bolts positioned along the flange adjacent the flange's peripheral edge.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Eldridge (US Pat. 793,831), *Calvert* (US Pat. 907,965), *Calvert* (US Pat. 1,044,018), *Speyer* (US Pat. 3,913,908), *Ionel* (US Pat. 4,076,236), *Hsu* (US Pat. 6,224,520 B1), *Hald et al.* (US Pat. 6,228,003 B1) and *Chen* (US Pat. App. Pub. No. 2006/0234843 A1) disclose structure relevant to the invention as claimed.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor K. Hwang whose telephone number is (571) 272-4976. The examiner can normally be reached Monday through Friday from 7:30 AM to 4:00 PM Eastern time.

The facsimile number for submitting papers directly to the examiner for informal correspondence is (571) 273-4976. The facsimile number for submitting all formal correspondence is (571) 273-8300.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Sirmons can be reached on (571) 272-4965.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Victor K. Hwang
August 16, 2007

KEVIN C. SIRMONS
SUPERVISORY PATENT EXAMINER

